

to find ways of obtaining more samples from the higher parts of the trees and, as in 2000, it is worth repeating the operation on several dates over a 2-3 week period. For the record, I was the only member of our group (Huntingdonshire Moth & Butterfly Group) to find a larva of the White-spotted Pinion in 2000. This was in an elm shelterbelt, several trees deep, just over the county boundary in Cambridgeshire. It was found on 28 May 2000 by searching epicormic growth by hand for spun leaves. Only one larva was found, about 2.3 metres from the ground, in a site previously visited successfully on 14 May 2000 by John Chainey, who passed the details to me. Unfortunately, the larva was small and soon produced a parasitoid (Waring, 2001. *Ent. Rec.* **113**: 135-138), so I was unable to study its feeding behaviour and the ease of separating the larva from its spinning during the later instars. As expected, the larval spinning for the small larva is quite tight and protective. Even more unfortunately, all the moths we captured during the light-trapping were males or spent females and no eggs were obtained to enable larvae to be reared in different conditions to study their behaviour. We shall hope for better luck in 2001. The larva and the habitat in which it was found are illustrated in Waring (2001. *Ent. Rec.* **113**: 135-138).

Incidentally, John Chainey has had the same experience of failing to find larvae during searches in a site that subsequently produced reasonable numbers of the adult moth at light-traps. It is also apparent from our searches that there are many insects which spin up elm leaves; spinings are numerous, but few are of *Cosmia* species.

I would like to thank all who joined me for the caterpillar hunts, and particularly David Evans for providing the ladder and conducting the beating at levels higher than the rest of us could reach from the ground. As regards light trapping for adults, Barry Dickerson and David Evans have done a commendable job investigating woodlands in Huntingdonshire for moths and latterly in taking a special interest in the White-spotted Pinion. The UK BAP project has provided an extra impetus and means for further work. The author thanks the Butterfly Conservation "Action For Threatened Moths Project" and English Nature for financial support for this work. There are many woods with elm still to be explored for this moth in Huntingdonshire and elsewhere and clearly much to learn about finding the larvae.— PAUL WARING, 1366 Lincoln Road, Werrington, Peterborough PE4 6LS.

### **Some notes and observations on the Small Eggar *Eriogaster lanestris* (L.) (Lep.: Lasiocampidae) in Somerset**

The decline of the Small Eggar in England has been well documented. For example, Waring (1993. *British Wildlife* **5**: 53) gives a distribution map showing records from some fifty-seven 10-kilometre squares since 1980, compared with over 300 before that date. Skinner (1998. *The Colour Identification Guide to Moths of the British Isles*. Second edition, Harmondsworth) attributes its decline to the "wholesale destruction and indiscriminate trimming of hedgerows, combined with the pollution caused by motor vehicles and the drift from agricultural insecticides". Until about 12 years ago it was thought that the situation in Somerset mirrored the national scene.

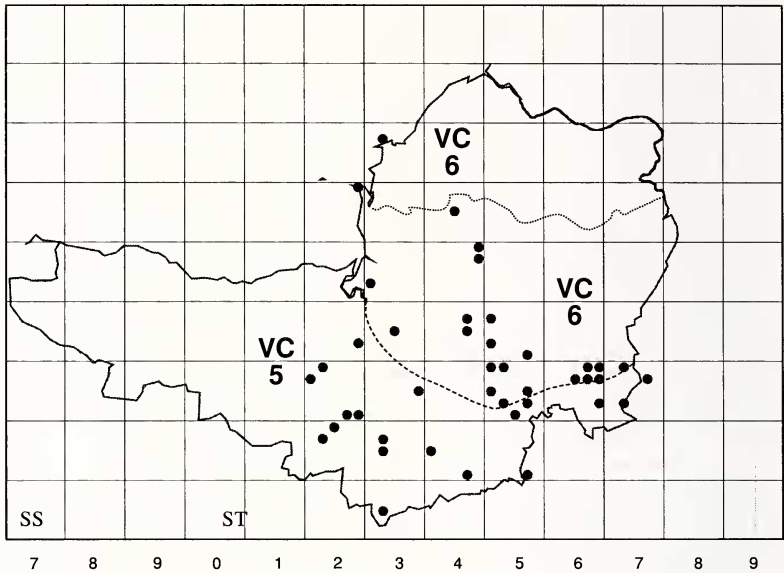
At the early part of the 20th century, A. E. Hudd stated in the *Victoria County History of Somerset* (1906, page 95), "common in the larval state", and Turner (1954, *The Lepidoptera of Somerset*) reported it "common and widespread". At about that time, the species began a period of national decline so that by the time the Somerset Moth Group (SMG) was formed, in 1990, it had become very rare. At the national level, it was listed as "Endangered" (Shirt, D. B., 1987, *British Red Data Books: 2. Insects*, NCC). The status was reduced by Waring (1994, *National Moth Conservation Project News*, Bulletin 5) to Nationally Notable category B.

At the inaugural meeting of the SMG, the decision was taken to start the new recording period for Somerset Lepidoptera from 1980. During the first 11 years of this period (1980-1990) the group received only nine records of the species from the whole of the county. These were all of larval webs. However, in February 1989, and in the next two years, several males were attracted to m.v. light at North Cheriton (OS grid reference ST 6826). At the same time, a web of larvae was found on a hedge by a gardener at the neighbouring village of Bratton Seymour. Although the web was spun on hazel *Corylus avellana*, the larvae were feeding on an adjacent blackthorn *Prunus spinosa*. From this web I took six larvae to breed cabinet specimens, and three proved to be parasitised by the fly *Exorista fasciata* (Fallén) (Tachinidae). Encouraged by this flush of records, the SMG resolved to look especially for the species in the following season (1991). It proved to be a favourable one for the species in the county and a large number of webs was recorded; these included twelve on a single site near my home, which proved convenient to monitor twice daily.

The site was on the embankment of a road cutting, under construction for the Wincanton by-pass. Although blackthorn occurred on both sides of the cutting, only those on the south-facing aspect were used, where they received the maximum available sunshine. Each of thirty other webs recorded that year, and sixty recorded since, had the same southerly aspect.

Following communications with Paul Waring a "web recording form" was completed for each web. Webs first became conspicuous during the second week in May, until which time temperature, rainfall and sunshine had been average. From 22 May, the rainfall was well above average and temperature below normal, with night frosts. By 27 May it was apparent that larval mortality would be high. Larvae only came out of the webs to feed during warm sunshine (not during the night as is stated in some works) and so had not been able to feed adequately for two weeks. The number of larvae per web had ranged initially from 90 to 130 but, by the end of May, some webs had as few as four healthy larvae remaining. The webs became filled with frass, which under dry conditions poses no hazard to the occupants, but when wet, mould became rampant and larvae succumbed to the usual succession of mould, viral and bacterial diseases.

Because of these conditions it was decided, on 27 May, to take one complete web with 88 larvae into captivity. It was placed in an empty aquarium with a loose-fitting lid. The container was placed outside in the sunshine whenever possible and, with daily attention to hygiene, larvae continued to thrive so that 84 reached maturity and



**Figure 1.** Distribution by tetrads ( $2 \times 2$  km squares) of Small Eggar *Eriogaster lanestris* (L.) in the two Somerset vice-counties since 1980.

pupated in one large mass between 11 and 25 July 1991. From these, 54 adults emerged between 24 February and 16 March 1992, and a further 19 in the early spring of 1993 when the remaining pupae were returned to the original site.

It is interesting to make comparisons, with inherited wisdom, regarding this species. Barrett (1896. *The Lepidoptera of the British Islands*. 3, 9-12) states that the eggs are laid on hawthorn or blackthorn, usually the former, whereas our experience in Somerset has shown 95% of webs are on blackthorn and 4% on hawthorn *Crataegus* spp., and the remainder on other hosts including elm *Ulmus* spp. and hazel; in 2001 one web was recorded on birch *Betula* sp. Barrett (*loc. cit.*), mentioned that the species is abundant in some years, but in other years, sometimes for several in succession, it can be very scarce. Experience over recent decades in Somerset confirms this pattern, but also raises questions as to its phenology.

Populations could be reduced by a succession of cold, wet springs, but could also fluctuate in a typical predator-prey cycle of the classical Lotka-Volterra type (Lotka, 1932. *J. Wash. Acad. Sci.* 22: 461-469; Volterra, 1926. *Variations and fluctuations of the numbers of individuals in animal species living together*. Reprinted in 1931 in Chapman, R.N. *Animal Ecology*. New York), on account of attacks by the parasitic fly, or by a combination of the two.

I offer my thanks to my very good friends Dr David Agassiz (for his generous assistance in the compilation of this note), Dr John Bradley for reading and correcting same and Tony Parsons for going to so much trouble, firstly to extract the parasitoid

from its host and then subsequently to identify it. Also to Mark Yeates for being so much more computer-literate than I and for the MapMate mapping program used here.— KEITH BROWN, The Barn House, Cheriton Hill, North Cheriton, Templecombe, Somerset BA8 0AB.

### **Colonisation by *Cacyreus marshalli* (Butler) (Lep.: Lycaenidae) of a site in south-west France**

The year 2000 promised to be something special here in the remote village of Graddé, when the usual five February butterflies here had been observed by the end of January (Peacock *Inachis io* (L.), Large Tortoiseshell *Nymphalis polychloros* (L.), Red Admiral *Vanessa atalanta* (L.), Speckled Wood *Pararge aegeria aegeria* (L.) and Brimstone *Gonepteryx rhamni* (L.)). Our house stands at the open end of a small valley, about three kilometres in length, with the ancient Forêt de Grésigne on one side and partially scrubbed garrigue hillside on the other. The valley floor is a small grassy plain, about 150 metres wide and with a small stream running along its length. The valley end opens out into vine-covered limestone hills.

On 24 April 2000, the Moroccan Orange-tip *Anthocharis belia euphenoides* (Stdgr.) put in an appearance – a new species for this area, although it is quite common further east. The year progressed with the same number of species as in earlier years – but in far greater numbers. In high summer, with temperatures around 30°C, we had Long-tailed Blues *Lampides boeticus* (L.) appear on 15 August and it was whilst watching these on 19 August that I noticed a small, long-tailed butterfly, bronze-brown in colour and with a very noticeable chequered border. This was fairly rapidly identified as the Geranium Bronze *Cacyreus marshalli*.

In the following days, numbers of this butterfly increased rapidly and a voucher specimen was collected. Although the butterflies settled on most plants, they clearly were actively seeking out our potted *Geranium* and *Pelargonium* plants and, after a few weeks, we observed many small, green larvae on these plants. By now we had also seen the adults in quantity (40+) in the flower beds surrounding the car park at the Palais de Justice complex in Albi, about 30 kilometres from our garden, but by the middle of September they had disappeared. Adults re-appeared in the first week of October and remained in the garden in reasonable numbers (25+) until 25 October, suggesting that there was a second generation of adults one month after the arrival of the primary immigrants.

It was with some impatience that we awaited the 2001 season. On 12 August in that year, a week earlier than during 2000, we observed a few adults and again within a few days there were more (30+) in the garden. Adults were seen every day up to 9 September and then vanished until reappearance on 7 October, with the final sighting of the year on 3 November – giving some indication of the weather conditions that we experienced. Once again, a visit to Albi (the administrative centre of the Département du Tarn) showed the species to be present in the city centre – albeit at a different site; a small car park had the bush *Caryopteris clandonensis* planted around the borders and we were surprised to see over one hundred males and females covering the